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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,813

07/13/2005

Munehiro Oda

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08/05/2008

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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

08/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,813	Applicant(s) ODA ET AL.	
	Examiner HAMID R. BADR	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/08/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Draaisma et al. (US 2002/0182301; hereinafter R1).

3. R1 discloses a fermented milk product having angiotensin converting enzyme I (ACE) inhibitory activity. The milk product is produced from milk fermented with *Lactobacillus delbrueckii subsp. lactis* (Abstract)

4. R1 claims fermented milk products wherein the milk product is milk, a milk type drink, yoghurt, dairy spread or cheese.

5. Given that R1 discloses ACE inhibitory activity of at least 35 U/ml, it is clear that the amount disclosed by R1 overlaps that presently claimed.

6. Claims 1-14 is rejected under 35 U.S.C. 102(b) as being anticipated by Henson (WO 97/18718; hereinafter R2).

7. R2 discloses a method for producing a reduced sodium processed cheese from a natural cheese. (Abstract)

8. R2 teaches making reduced sodium processed cheese by a combination of phosphate salts where a natural cheese alone or in combination with other cheeses can be used to achieve the desired flavor profile of the processed cheese. Such natural cheeses can be salted, unsalted or lightly salted alone or in combination (page 4, lines 5-10). A medium aged, natural cheese such as regular cheddar, typically 4-6 months old or unsalted or lightly salted cheddar of up to 3 months old can be used to make the processed cheese (page 6, lines 16-22).

9. R2 discloses that the processed cheese has a salt content of 550-950 mg Na/100g (page 3, lines 22-24). R2 gives an example of a processed cheese product having 800 mg sodium per 100 g of product (page 9, Example 1). R2 discloses the method for producing a reduced sodium cheese containing 830 mg sodium per 100 g product in which dipotassium phosphate is used at 0.5% (page 10, example 2). Given that dipotassium phosphate (anhydrous salt) has a molecular weight of 174, 0.5% of this salt provides about 224 mg of potassium per 100 g of cheese. To produce cheese at lower potassium content, the DKP maybe reduced to half of the amount to result in about 100 mg potassium per 100 g of cheese. R2 discloses using the salts within the 0.25-0.75% range to avoid bitterness resulting from the use of potassium phosphate salts (page 5, lines 7-9).

10. Given that R2 discloses processing natural cheese as presently claimed, it is clear that the natural cheese would inherently have ACE inhibitory activity of 420 U/g or more as presently claimed and the processed cheese would inherently have ACE

inhibitory activity of 350 U/g or more as presently claimed.

11. Claims 1-14 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 2003-033136 (Machine translation, hereinafter R3).

12. R3 discloses a processed cheese with a sodium content of 800 mg /100 g or less and a potassium content of 100 mg/100g or more. R5 discloses the process for making the reduced sodium cheese using potassium pyrophosphate, potassium phosphate and potassium citrate (Abstract).

13. R3 discloses that any natural cheese used for the manufacture of processed cheese may be used including cheddar, camembert, blue cheese, emmental, edam [006].

14. R3 teaches using various potassium phosphates and potassium citrate to reduce the sodium content of natural cheeses in making a processed cheese. [007].

15. R3 uses cheddar cheese (a New Zealand product) and Gouda cheese for the production of reduced sodium processed cheese. (page 3, work example 1). Given that R3 discloses processing natural cheese as presently claimed as well as discloses using cheese identical to that used in the present invention, i.e. New Zealand cheddar, it is clear that the natural cheese would inherently have ACE inhibitory activity of 420 U/g or more as presently claimed and the processed cheese would inherently have ACE inhibitory activity of 350 U/g or more as presently claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-T 5:00 to 3:30 (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr
Examiner
Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794